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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/825,556	04/14/2004	Hiroyasu Ide	04234 /LH	8850
1933 7590 12/10/2007 FRISHAUF, HOLTZ, GOODMAN & CHICK, PC 220 Fifth Avenue 16TH Floor NEW YORK, NY 10001-7708			EXAMINER VANCHY JR, MICHAEL J	
			ART UNIT 2624	PAPER NUMBER
			MAIL DATE 12/10/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	Application No. 10/825,556	Applicant(s) IDE, HIROYASU	
	Examiner Michael Vanchy Jr.	Art Unit 2624	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

#### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

#### Status

- 1) ☒ Responsive to communication(s) filed on 14 April 2004.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

#### Disposition of Claims

- 4) ☒ Claim(s) 5-10 and 16-20 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 5-10 and 16-20 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

#### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 14 April 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

#### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

#### Attachment(s)

- |   |   |
|---|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)  | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>See Continuation Sheet</u> . | 6) <input type="checkbox"/> Other: _____  |

Continuation of Attachment(s) 3). Information Disclosure Statement(s) (PTO/SB/08), Paper No(s)/Mail Date :07/18/2007, 03/23/2007, 02/01/2006, 09/09/2005, 04/14/2004.

## DETAILED ACTION

### *Claim Objections*

1. Claims 7, 8, 18, and 19 are objected to because of the following informalities:  
The examiner is unsure of the use "manieth" used in the above mentioned claims, since it is not an English word. The examiner disregarded "manieth" within the claim, since it only seems to confuse the claim language. The understanding of the claim is still kept in-tact without the use of "manieth," in the examiner's opinion. Appropriate correction is required.

### *Claim Rejections - 35 USC § 102*

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. **Claims 5-8 and 16-19 are rejected under 35 U.S.C. 102(e) as being anticipated by Suzuki et al., US 6,608,941 B1.**

#### **Regarding claim 5:**

An image processing apparatus comprising: a line sensor including a plurality of image pickup elements (Fig. 29, item "3," and col. 1, lines 46-56); a pixel value detecting unit which detects a first pixel value and a second pixel value from each image data

including a plurality of pixels output from each of the image pickup elements; a pixel value range detecting unit which detects a pixel value range between the first pixel value and the second pixel value detected by the pixel value detecting unit; a normalized data generating unit which generates normalized data that indicates a ratio of a pixel value of each of the pixels of the image data to the pixel value range (col. 30, lines 36-41); a normalized data average calculating unit which calculates an average of the normalized data generated by the normalized data generating unit; and a pixel value correcting unit which corrects a pixel value of each of the pixels of the image data based on the average calculated by the normalized data average calculating unit and the pixel value of each of the pixels (Abstract and col. 5, lines 24-56).

The examiner takes into account that Suzuki et al. (Suzuki) takes a pixel of interest (first pixel) and compares it with the neighboring pixels, composed of a "predetermined number of pixels." It is quite clear that the number of pixels can be limited to the pixel of interest and a second pixel if desired. The grouping of more pixels increases the accuracy of the weighted average for pixel correction and is why Suzuki uses more pixels but it does not limit itself to having to use a plurality of pixels as stated above.

**Regarding claim 6:**

The image processing apparatus according to claim 5, wherein the pixel value detecting unit detects a maximum pixel value and a minimum pixel value from the image data output from each of the image pickup elements as the first pixel value and the second pixel value, respectively (col. 20, line 64 to col. 21, line 9).

**Regarding claim 7:**

The image processing apparatus according to claim 5, wherein the pixel value detecting unit includes: a designated value recording unit which records a designated value that indicates an order of the pixels of the image data output from the image pickup elements; a first detection unit which detects a pixel value of a pixel of the image

data output from the image pickup elements as the first pixel value, the pixel value being a designated-maximum largest one recorded by the designated value recording unit; and a second detection unit which detects a pixel value of a pixel of the image data output from the image pickup elements as the second pixel value, the pixel value being a designated-maximum smallest one recorded by the designated value recording unit (Figs. 3, item "53" storage unit, and 6A and 6B).

The examiner takes into account that Suzuki determines the largest recorded value (density) pixel in graphical form in 6A. The peak of the wave, is the largest while the lowest value is the peak under the Lmid line. This allows for designating an order of the pixels from maximum to minimum or vice versa.

**Regarding claim 8:**

The image processing apparatus according to claim 5, wherein the pixel value detecting unit includes: a designated value recording unit which records a designated value that indicates an order of the pixels of the image data output from the image pickup elements; a first setting unit which sets an average of pixel values from a maximum pixel value to a designated-maximum pixel value recorded by the designated value recording unit in the image data output from the image pickup elements as the first pixel value; and a second setting unit which sets an average of pixel values from a minimum pixel value to a designated-maximum pixel value recorded by the designated value recording unit in the image data output from the image pickup elements as the second pixel value (col. 5, lines 24-56).

**Regarding claim 16**, see rejection made to claim 5, as it addresses the rejection to the processing apparatus of this method.

**Regarding claim 17**, see rejection made to claim 6, as it addresses the rejection to the processing apparatus of this method.

**Regarding claim 18**, see rejection made to claim 7, as it addresses the rejection to the processing apparatus of this method.

**Regarding claim 19**, see rejection made to claim 8, as it addresses the rejection to the processing apparatus of this method.

***Claim Rejections - 35 USC § 103***

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

3. **Claims 9, 10, and 20 are rejected under 35 U.S.C. 103(a) as being unpatentable over Suzuki et al., US 6,608,941 B1 and further in view of Horinouchi JP 2001184490.**

**Regarding claims 9, 10, and 20** Suzuki describes an image processing apparatus with a line sensor, but is silent on fixing the line sensor to a hollow roller that reads a fingerprint image. However, Horinouchi teaches a transparent roller which

extracts an image of a fingerprint using a line sensor (Abstract). It is clear to one of ordinary skill in the art that it would be obvious at the time of the invention to modify Suzuki to incorporate its image enhancement process to use in fingerprint applications such as Horinouchi's, since the image enhancement increases the accuracy of determining the match, or identity of the individual.

***Examiner's Note***

The referenced citations made in the rejection(s) above are intended to exemplify areas in the prior art document(s) in which the examiner believed are the most relevant to the claimed subject matter. However, it is incumbent upon the applicant to analyze the prior art document(s) in its/their entirety since other areas of the document(s) may be relied upon at a later time to substantiate examiner's rationale of record. A prior art reference must be considered in its entirety, i.e., as a whole, including portions that would lead away from the claimed invention. W.L. Gore & associates, Inc. v. Garlock, Inc., 721 F.2d 1540, 220 USPQ 303 (Fed. Cir. 1983), cert. denied, 469 U.S. 851 (1984). However, "the prior art's mere disclosure of more than one alternative does not constitute a teaching away from any of these alternatives because such disclosure does not criticize, discredit, or otherwise discourage the solution claimed...." In re Fulton, 391 F.3d 1195, 1201, 73 USPQ2d 1141, 1146 (Fed. Cir. 2004).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Michael Vanchy Jr. whose telephone number is (571)



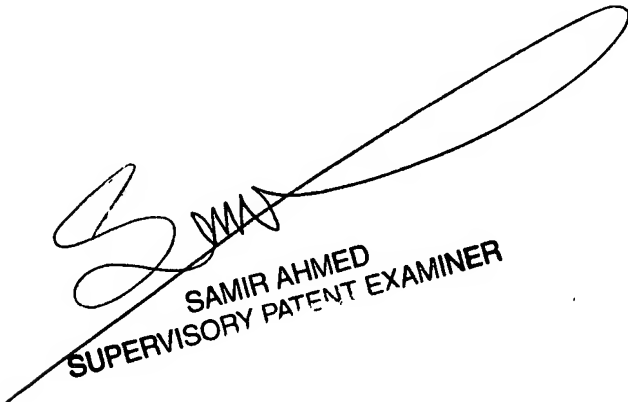
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270-1193. The examiner can normally be reached on Monday - Friday 8:30 am - 5:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Samir Ahmed can be reached on (571) 272-7413. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.



**SAMIR AHMED**  
**SUPERVISORY PATENT EXAMINER**

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